

WHAT IS CLAIMED IS:

1 1. A method of controlling semi-frozen liquid beverage in a dispensing machine having
2 a bowl to contain said beverage therein, a motor to turn a helical auger blade within said bowl to
3 scrape the semi-frozen beverage, and a compressor to cool said beverage, which method comprises:
4 actuating said compressor to said bowl until temperature of said beverage is cooled
5 to reach an initial set point;
6 deactivating said compressor to said bowl after temperature of said beverage is cooled
7 at or below said set point;
8 sensing torque on said motor caused by resistance to said auger blade after a defined
9 time period following said switching off of said compressor;
10 activating said compressor to said bowl if torque on said motor is below a certain
11 level; and
12 lowering said temperature set point from said initial set point to a lower set point to
13 cool said product.

1 2. A method of controlling semi-frozen liquid beverage as set forth in Claim 1 wherein
2 said initial step of activating said compressor to said bowl includes switching a solenoid switch.

1 3. A method of controlling semi-frozen liquid beverage as set forth in Claim 1 including
2 the steps of monitoring a pump which delivers said beverage to said bowl to determine amount of
3 beverage delivered to said bowl and raising said set point when a selected amount has been
4 delivered.

1 4. A method of controlling semi-frozen liquid beverage as set forth in Claim 1 including
2 the steps of monitoring a pump timer to determine the amount of beverage delivered to said bowl
3 and raising said set point when a selected amount has been delivered.

1 5. A semi-frozen liquid beverage dispensing machine having a bowl to contain semi-
2 frozen beverage therein, which apparatus comprises:

3 at least one refrigerated storage cavity for receiving a bulk storage container of liquid
4 beverage;

5 a fluid passageway tube extending between said bowl and said bulk storage container;

6 a pump to transport said liquid from said bulk storage container through said tube and
7 said bowl; and

8 a sensor to sense liquid level of said semi-frozen beverage in said bowl of said
9 machine, said sensor connected to said pump.

1 6. A self-contained liquid storage and delivery apparatus as set forth in Claim 5 wherein
2 said bulk storage container is a flexible membrane bag within a rigid box and includes a connection
3 nipple.

1 7. A semi-frozen liquid beverage dispensing machine as set forth in Claim 5 wherein
2 said fluid passageway tube is within a refrigerated zone.

1 8. A semi-frozen liquid beverage dispensing machine as set forth in Claim 5 wherein
2 said bulk storage container includes a radio frequency ID tag which communicates with a
3 transmitter/receiver in said machine.

1 9. A method to store, deliver and automatically fill liquid beverage for supplying a
2 separate, discrete semi-frozen liquid beverage machine having a bowl to contain beverage products,
3 which method comprises:

4 storing at least one bulk storage container of said beverage products in a refrigerated
5 storage cavity separate and discrete from said liquid beverage machine;

6 transporting said beverage products from said storage container in said refrigerated
7 storage cavity through a thermally conductive passageway into a bowl of said beverage machine by
8 pumping with a pump; and

9 sensing liquid level with a liquid level sensor in said bowl in order to activate or
10 deactivate said pumping.

1 10. A method as set forth in Claim 9 including the additional step of removing said bulk
2 storage container of said liquid beverage from said cavity and replacing with another storage
3 container.

1 11. A method to store, deliver and automatically fill liquid beverage for a semi-frozen
2 liquid beverage machine having a bowl to contain beverage products, which method comprises:

3 storing at least one bulk storage container of said beverage products in a refrigerated
4 storage cavity within said liquid beverage machine;

5 transporting said beverage products from said storage container in said refrigerated
6 storage cavity through a thermally conductive passageway into said bowl of said beverage machine;

7 and

8 delivering water from a water supply to deliver water to a bowl.

1 12. A method to store, deliver and automatically fill liquid beverage for a semi-frozen
2 liquid beverage machine having a bowl to contain beverage products, which method comprises:

3 storing at least one bulk storage container of said beverage products in a refrigerated
4 storage within said liquid beverage machine;

5 transporting said beverage products from said storage container in said refrigerated
6 storage cavity through a thermally conductive passageway into said bowl of said beverage machine;

7 and

8 wherein the step of transporting said liquid beverage includes delivering said liquid
9 beverage to said bowl below the liquid level in said bowl.

1 13. A bowl for a beverage dispenser, which bowl comprises:

2 an elongated cylindrical body;

3 an open back capable of mating with said dispenser; and

4 a closed, partially domed front.

1 14. A bowl for a beverage dispenser as set forth in Claim 13 wherein an
2 cylindrical body is at an angle to horizontal plane of said dispenser.

1 15. A bowl for a beverage dispenser as set forth in Claim 13 wherein said
2 body has a port to receive a pin extending from said dispenser in order to lock said bo

1 16. A bowl for a beverage dispenser as set forth in Claim 13 wherein said bo
2 a cylindrical evaporator through said open back.